



September 5, 2023
Via Electronic Mail

New York State Public Service Commission

Case No. G-22-0610 – In the Matter of a Review of the Long-Term Gas System Plan of National Fuel Gas Distribution Corporation

Comments from New Yorkers for Clean Power and The New York Climate Reality Chapters Coalition concerning the substance of the Final Long-Term Plan filed by National Fuel Gas Distribution Corporation on July 17, 2023.

Table of Contents

I. About New Yorkers for Clean Power and The Climate Reality Project	1
II. Introduction	2
III. Attributes of a Policy-Aligned LTP Consistent With the CLCPA	2
IV. Flaws in NFG's Final LTP Filing	11
V. Requested Actions and Justification	17
VI. Summary and Conclusion	20

I. About New Yorkers for Clean Power and The Climate Reality Project

New Yorkers for Clean Power (NYCP) is a statewide collaborative campaign to rapidly shift to a clean energy economy. Through research, education, advocacy, and organizing, the campaign seeks to advance a range of clean energy, building decarbonization, and clean transportation solutions as well as creating jobs in these industries for all communities in New York State (NYS). NYCP is a Project of the Catskill Mountainkeeper Inc.

The Climate Reality Project is an international organization founded in 2006 by former Vice President Al Gore that has over 45,000 trained leaders worldwide and about 150 chapters across the USA, and whose mission is “to catalyze a global solution to the climate crisis by making urgent action a necessity across every sector of society.” The New York Climate Reality Chapters Coalition (NY-CRP) comprises the seven chapters of The Climate Reality Project in NYS.

II. Introduction

The New York Public Service Commission (Commission) issued an Order Adopting Gas System Planning Process¹ (Gas Planning Order) on May 12, 2022, which established a gas system planning process (Process) for the state's fossil natural gas local distribution companies (LDCs) and required each LDC to file periodic Long-Term Plans (LTPs) for meeting customer needs in a transparent and equitable way, while minimizing infrastructure investments and in a manner consistent with the Climate Leadership and Community Protection Act² (CLCPA) of 2019.

In response to the Gas Planning Order, National Fuel Gas Distribution Corporation (NFG) submitted its initial LTP on December 22, 2022, a revised one on May 22, 2023, and a final one³ on July 17, 2023. NYCP and NY-CRP respectfully submit these comments on the third and final LTP.

NYCP and NY-CRP contend that NFG's Final LTP cannot be accepted, and an alternate LTP must be prepared instead that is compliant with the Gas Planning Order as well as the CLCPA.

Furthermore, NYCP and NY-CRP request that the Commission adopt a modified Process that is more "suited to forward-looking system and policy needs," as required by the Commission in its Order Instituting Proceedings⁴ dated March 19, 2020.

We recommend that in view of NFG's inability or unwillingness to craft a suitable LTP, under the statutory authority granted to Commission through §8 and the requirement imposed through §7(2) of the CLCPA,² the Substantive Requirements for LTP filings in the Gas Planning Order⁵ should be modified to include reasonable LDC-specific annually declining GHG emission limits to serve as constraints for the LDCs to ensure that the demand forecasts used in their LTPs are generally aligned with the statutory GHG emissions limits² of ECL §75-0107. This modification would help satisfy the "Policy-Aligned Gas Planning" requirement of the Order Instituting Proceedings⁴ and will make the Process more efficient and effective.

Detailed justification for these requests is included in the following sections of the comments, starting with general principles that should apply to any LTP for it to be aligned with state policy under the CLCPA.

III. Attributes of a Policy-Aligned LTP Consistent With the CLCPA

Although the LDCs have a wide latitude in designing their LTPs, there are certain fundamental requirements that each LTP must satisfy for cost-effectiveness and consistency with the CLCPA as

¹ Order Adopting Gas System Planning Process;

<https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={130B05B5-00B4-44CE-BBDF-B206A4528EE1}>

² The State of New York, S.6599/A.8429, 2019-2020 Regular Sessions; <https://legislation.nysenate.gov/pdf/bills/2019/S6599>

³ Final Long-Term Plan: National Fuel Gas Distribution;

<https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={205D6589-0000-CB4F-9536-3A1F1B087987}>

⁴ New York Department of Public Service Case 20-G-0131 – Proceeding on Motion of the Commission in Regard to Gas Planning Procedures (pp. 6);

<https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={2BE6F1CE-5F37-4A1A-A2C0-C01740962B3C}>

⁵ Order Adopting Gas System Planning Process (pp. 4, 28);

<https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={130B05B5-00B4-44CE-BBDF-B206A4528EE1}>

required in the Gas Planning Order⁵ and with the Policy-Aligned Gas Planning requirement of the Order Instituting Proceedings.⁴

a. Greenhouse Gas Emissions Reduction

According to the Gas Planning Order,⁵ the gas system “planning must be conducted in a manner consistent with CLCPA.” While the CLCPA itself does not impose specific requirements on the state’s gas distribution system, ECL §75-0109 added by the CLCPA does require that in 2024, the DEC promulgate rules and regulations to ensure compliance with statewide GHG emissions reduction limits. These regulations shall include legally enforceable emission limits (ECL §75-0109(2)(b)), reflect in substantial part the findings of the Scoping Plan (ECL §75-0109(2)(c)), and include measures to reduce emissions from GHG emission sources that have a cumulatively significant impact on the statewide GHG emissions, such as boilers or furnaces that burn oil or natural gas (ECL §75-0109(2)(d)).

There is no reason to believe that the gas distribution system will not be required to meet or exceed the statewide GHG emissions targets set forth in ECL §75-0107(1) by the CLCPA, including a 40% reduction relative to 1990 levels by 2030 and an 85% reduction by 2050. Since sectors like agriculture and aviation as well as Energy Intensive and Trade Exposed (EITE) entities that are hard to fully decarbonize are expected to account for the bulk of the remaining 15% emissions to be offset via alternative compliance mechanisms by 2050, the buildings sector, and therefore the gas distribution system, could be required to reduce its emissions to a greater extent and at a faster pace than stipulated in ECL §75-0107(1). The Climate Action Council’s Scoping Plan⁶ also recommends zero-emission standards to phase out fossil fuel combustion equipment and includes a gas system transition framework whose first key principle is ensuring that the gas transition plan meets the GHG emission reduction targets of the CLCPA.

The available information on the New York Cap-and-Invest (NYCI) program being developed by NYSERDA and the DEC indicates⁷ that the emissions caps will match the CLCPA targets, that large-scale GHG emitters and distributors of heating and transportation fuels will be required to purchase allowances for the emissions associated with their activities, and that fuel suppliers, including fossil natural gas suppliers, are anticipated to have obligations for all non-aviation fuels utilized in NYS.

While some industrial customers may not be included among obligated entities for aligning their emissions with the NYCI caps due to their possible status as EITE entities, the fossil natural gas delivered to all residential and most commercial and public authority customers (with a possible exception of hospitals) would be subject to NYCI caps.

Furthermore, two-thirds of the proceeds from NYCI will be directed towards a Climate Investment Account to fund critical decarbonization and energy efficiency measures. These investments, the incentives from the federal Inflation Reduction Act (IRA), and legislative and regulatory actions recommended in the Scoping Plan⁶ will work together to drive down fossil natural gas demand though

⁶ New York’s Scoping Plan (Chapters 12, 18; Table 18); <https://climate.ny.gov/Resources/Scoping-Plan>

⁷ Cap-and-Invest: Preproposal Stakeholder Outreach (pp. 10, 11, 24, 25); https://capandinvest.ny.gov/-/media/Project/CapInvest/Files/2023-06-06-NYCI_NaturalGas_Webinar.pdf

electrification and energy efficiency measures to levels that are consistent with the progressively declining GHG emissions caps aligned with the CLCPA's targets.

Therefore, any LTP with residential, commercial, and public authority demand and supply forecasts that are inconsistent with the GHG emissions reduction targets of the CLCPA cannot be deemed to be aligned with NYS policy.

b. Impact of Costs of Exceeding NYCI Caps and of the Gas Distribution Network

The NYCI caps on emissions, including those from fossil natural gas delivered to homes and businesses will follow the CLCPA's targets on a progressively declining trajectory. Gas deliveries that do not decline in line with the NYCI caps will require suppliers to purchase a progressively increasing number of allowances. Any LTP with significant amounts of such excess gas delivery projections should be considered impractical because of the progressively increasing cost of delivering gas exceeding NYCI caps. At the very least, these LTPs must include the impact of cost estimates associated with excessive gas deliveries on gas demand. Since the actual price of allowances will be determined by their market at a future date, at this time, it might be sufficient to use DEC's Value of Carbon Guidelines⁸ for reasonable estimates.

It must be noted that as the volume of gas delivered declines, the per-therm delivery cost of the gas will increase⁹ without a proportionate reduction in the size of the gas distribution network. This is because of the costs of maintaining the distribution system, which depends on its size, and those of the LDCs' expensive and unsustainable leak-prone pipe (LPP) replacement programs¹⁰ would need to be recovered through fewer therms delivered.

There are additional emissions and cost consequences of not downsizing the gas distribution system in proportion to the volume of gas delivered. The leakage from the system depends on the size of the pressurized system, not the amount of gas consumed. Without proportional reduction in the size of the system, the percentage of fugitive methane emissions and therefore the real carbon intensity of the gas remaining on the system will continue to increase. This could have complex repercussions for the NYCI program. The leakage rates from the gas distribution systems are already vastly underestimated.^{11,12} A future correction of leakage rates in DEC's GHG inventory¹³ could further increase the NYCI liabilities of the gas distribution system.

LTPs must ideally incorporate strategic downsizing of the gas delivery network in proportion to realistic and CLCPA-compliant gas delivery forecasts, failing which, they must model the impact of the progressively increasing costs of the delivery system on gas demand in their service territories.

⁸ Establishing a Value of Carbon: Guidelines for Use by State Agencies (Table 1); https://www.dec.ny.gov/docs/administration_pdf/vocguide23final.pdf

⁹ The Future of Gas in New York; <https://buildingdecarb.org/wp-content/uploads/BDC-The-Future-of-Gas-in-NYS.pdf>

¹⁰ The High Cost of New York Gas Utilities' Leak-Prone Pipe Replacement Programs; https://www.synapse-energy.com/sites/default/files/22-017_High_Cost_NY_Gas_Utilities_LPP_Programs_0.pdf

¹¹ Majority of US Urban Natural Gas Emissions Unaccounted For in Inventories; <https://www.pnas.org/doi/10.1073/pnas.2105804118>

¹² Methane Emissions From the Production and Use of Natural Gas; https://www.research.howarthlab.org/documents/Howarth2022_EM_Magazine_methane.pdf

¹³ 2022 Statewide GHG Emissions Report: Summary Report; https://www.dec.ny.gov/docs/administration_pdf/ghgsumrpt22.pdf

c. Avoiding Reliance on Renewable Natural Gas

The product marketed as Renewable Natural Gas (RNG) is pipeline-grade methane derived from biogas produced as a result of anaerobic decomposition of organic matter. RNG is often claimed to be carbon negative because it supposedly captures the methane that the RNG feedstock, particularly Municipal Solid Waste (MSW) and animal manure, would otherwise release into the atmosphere. However, this assertion is demonstrably incorrect for many RNG feedstocks and sources and may apply only marginally to some others.

Despite claims of its climate benefits, the supply chain, production and distribution of RNG is energy-intensive and is disposed to significant methane releases.¹⁴ Methane is a potent GHG with a 20-year GWP that is nearly 83 times¹⁵ greater than that of carbon dioxide. Combined with the fact that the source of the bulk of RNG will not be naturally produced biogas but intentionally produced methane from biogenic sources – methane that would not otherwise be produced – makes RNG a net positive emissions source. Furthermore, the emissions characteristics of RNG are highly sensitive to its feedstock, and one specific standard cannot be applied to RNG as a whole.

1. Climate Impact of Intentionally Produced RNG

Any use of energy crops for any biofuel, including RNG, would always be carbon intensive¹⁶ due to significant life-cycle energy inputs required for producing these crops. Although the combustion emissions from both intentionally and naturally produced RNG from waste streams can be considered close to carbon neutral, because most of that waste would naturally decompose over time, energy inputs and methane leakage render all intentionally produced RNG carbon positive. The energy inputs and the associated emissions for RNG production¹⁷ are generally well understood, but accurately assessing supply chain and process emissions for RNG production can be challenging.¹⁸ A growing body of research,^{19,20,21,22,23,24,25} mostly based on overseas biogas and RNG facilities with

¹⁴ Greenhouse Gas Accounting for Biofuels: RNG as an Example;
<https://drive.google.com/file/d/1NmOJZKCj5AMvFM3G8asJACPWxPUeSOoc/view?usp=sharing>

¹⁵ IPCC AR6. Climate Change 2021: The Physical Science Basis (Table 7.15, pp 1017);
https://report.ipcc.ch/ar6/wg1/IPCC_AR6_WGI_FullReport.pdf

¹⁶ Life Cycle Greenhouse Gas Emissions of Biodiesel and Renewable Diesel in the United States;
<https://pubs.acs.org/action/showCitFormats?doi=10.1021/acs.est.2c00289&ref=pdf>

¹⁷ Life Cycle Analysis of Renewable Natural Gas and Lactic Acid Production From Waste Feedstocks;
<https://www.sciencedirect.com/science/article/abs/pii/S0959652621018710>

¹⁸ Methane Emissions from Biogas Plants;
<https://www.ieabioenergy.com/blog/publications/methane-emissions-from-biogas-plants-methods-for-measurement-results-and-effect-on-greenhouse-gas-balance-of-electricity-produced/>

¹⁹ Field Measurements of Fugitive Methane Emissions from Three Australian Waste Management and Biogas Facilities;
<https://www.sciencedirect.com/science/article/pii/S0956053X21005985?via%3Dihub>

²⁰ Monitoring and Mitigation of Methane Emissions from Pressure Relief Valves of a Biogas Plant;
<https://onlinelibrary.wiley.com/doi/10.1002/ceat.201900180>

²¹ Comparative Use of Different Emission Measurement Approaches to Determine Methane Emissions From a Biogas Plant;
<https://www.sciencedirect.com/science/article/abs/pii/S0956053X17304361?via%3Dihub>

²² Analysis of Greenhouse Gas Emissions From 10 Biogas Plants Within the Agricultural Sector;
<https://iwaponline.com/wst/article-abstract/67/6/1370/16469/Analysis-of-greenhouse-gas-emissions-from-10>

²³ Quantification of Methane Emissions From UK Biogas Plants;
<https://www.sciencedirect.com/science/article/pii/S0956053X21000167?via%3Dihub>

²⁴ Total Methane Emission Rates and Losses From 23 Biogas Plants;
<https://www.sciencedirect.com/science/article/abs/pii/S0956053X19304842?via%3Dihub>

²⁵ Fugitive Methane Emissions From an Agricultural Biodigester;
<https://www.sciencedirect.com/science/article/abs/pii/S0961953411003333?via%3Dihub>

generally stricter pollution controls suggests that methane emissions from the supply chain and production are substantial and have been underestimated.^{26,27} In fact, at roughly a 5% leakage rate, the carbon intensity of intentionally produced RNG begins to rival that of fossil natural gas.²⁷ The median leakage rate,²⁶ even without counting downstream emissions, is indeed close to this break-even point of 5%.

2. Potential Sources of RNG in New York State

A NYSERDA report estimates²⁸ that under an “Achievable Deployment” scenario, 60% of RNG production in NYS is likely to be based on thermal gasification from feedstock that naturally emits minimal amounts of methane. Any RNG produced from thermal gasification would be carbon intense due to energy inputs and leakage and releases of the intentionally produced methane.

Of the remaining 40% RNG to be produced by anaerobic digesters from organic waste streams, a significant portion would still involve producing methane that wouldn’t be otherwise produced. This is because digesters are designed to optimize methane production while waste management practices attempt to minimize methane production.

For instance, consider the animal manure feedstock. At 33% utilization in the “Achievable Deployment” scenario²⁸, animal manure is expected to yield 9.1 tBTU/yr or about 175 million Kg of methane in NYS, assuming 95% methane content in RNG.

According to the DEC GHG inventory,²⁹ in 2020, the total emissions from manure management in NYS were 6.77 mmt CO₂eq with GWP20, which is about 82 million Kg of methane. One-third of that, or 27 million Kg, is roughly the amount of natural methane released from about the same ratio of feedstock that, according to the NYSERDA study,²⁸ is projected to yield 175 million Kg of methane through anaerobic digestion in 2040. This shows that RNG production estimates consider extracting several times (175/27 or roughly 6.5 times) more methane from animal manure than would be released through current manure management practices. This comparison is valid because the total amount of livestock manure managed within NYS is not likely to be dramatically higher in 2040 than in 2020, and manure management practices will improve.

All the methane leakage and release rates for RNG supply chain and production must apply to the higher volumes of methane produced, much of which would have never been produced otherwise. This fact is often overlooked in the gas industry’s simplistic and deliberately misleading argument that RNG is carbon negative, because it relies on the assumption that RNG is made from methane that would otherwise escape into the atmosphere.

²⁶ Methane Emissions Along Biomethane and Biogas Supply Chains are Underestimated;
<https://www.sciencedirect.com/science/article/pii/S2590332222002676>

²⁷ At Scale, Renewable Natural Gas Systems Could be Climate Intensive: The Influence of Methane Feedstock and Leakage rates; <https://iopscience.iop.org/article/10.1088/1748-9326/ab9335>

²⁸ Potential of Renewable Natural Gas in New York;
<https://www.nyserdera.ny.gov/-/media/Project/Nyserda/files/EDPPP/Energy-Prices/Energy-Statistics/RNGPotentialStudyforCA C10421.pdf>

²⁹ 2022 NYS Greenhouse Gas Emissions Report: Sectoral Report #3;
https://www.dec.ny.gov/docs/administration_pdf/ghgafolu22.pdf

3. *RNG Imported from Other States*

Under New York's gross GHG accounting system, the in-state fugitive and combustion emissions from RNG imported from other states are included in the statewide GHG emissions report¹³ and would be virtually indistinguishable from similar in-state emissions from fossil natural gas. The net GHG emissions accounting for alternate compliance mechanisms to achieve the 2050 net-zero emissions goals excludes biofuels (ECL §75-0109(4)(g)(ii)), including RNG, and requires geographically proximal source of offset projects (ECL §75-0109(4)(h)(ii)), effectively ruling out most out-of-state RNG.

Another reason to avoid incorporating RNG dependent on out-of-state feedstocks into LTPs is that the future supply of these feedstocks is even more unreliable than the supply of in-state feedstocks, and can be diverted for local use in the producing states at any time.

4. *Reliance on RNG for Emissions Reduction*

In addition to RNG's underappreciated climate impact, its production and combustion have the potential to increase air pollution, which inevitably has a disproportionate harmful impact on disadvantaged communities.

RNG's air pollution and carbon intensity alone mostly disqualify it from being considered as a viable alternative to fossil natural gas in LTPs for the purpose of reducing GHG emissions for compliance with CLCPA. Any limited supply of RNG sourced from naturally produced in-state biogas with a GWP lower than that of fossil natural gas must be reserved for the hard-to-electrify industrial uses.

Therefore, RNG cannot be incorporated in an LTP for commercial, public authority, and residential distribution for the purpose of reducing GHG emissions for compliance with the CLCPA at any meaningful scale, because neither the out-of-state RNG nor the in-state RNG derived from intentionally produced biogas have the actual potential to reduce GHG emissions in a manner consistent with the CLCPA.

d. Avoiding Hydrogen

In order to qualify as a zero-emission source, certain specific conditions for the production of green hydrogen must be met and its leakage/release rates must be monitored and minimized because hydrogen itself acts as a greenhouse-effect enhancing agent with an estimated 20-year GWP of around 37.³⁰

Behind-the-meter electricity input from new dedicated carbon-free generation can guarantee that the green hydrogen thus produced is zero-emission. However, emissions due to hydrogen production from grid-connected electrolyzers can be worse than those for gray hydrogen derived from fossil fuels³¹ under common operating conditions. A combination of two factors leads to this outcome. First,

³⁰ A Multi-Model Assessment of the Global Warming Potential of Hydrogen;
<https://www.nature.com/articles/s43247-023-00857-8.pdf>

³¹ Minimizing Emissions From Grid-Based Hydrogen Production in the United States;
<https://iopscience.iop.org/article/10.1088/1748-9326/acac5/meta>

uncurtailed power from a grid-connected renewable energy resource used for producing green hydrogen would be replaced by fossil-fueled generation. Second, producing hydrogen from methane directly, albeit emissions intensive, is still a more energy-efficient pathway than using methane to generate electricity to replace the renewable generation diverted for electrolysis.

The production of green hydrogen must strictly meet the three criteria below for it to qualify as zero-emission. These are endorsed by American Clean Power³² and others,³³ and are also the foundation of the criteria defining renewable hydrogen approved by the European Union.³⁴ Furthermore, eleven leading hydrogen and renewable energy companies endorsed these three criteria in a recent letter³⁵ to the Biden Administration and wrote, “There is a growing consensus that hourly and locational matching of new clean energy supply to grid-tied electrolyzer load is key to minimizing emissions, a conclusion of all studies that have analyzed the long-term impacts of grid-based hydrogen production.”

1. Additionality

Additionality refers to the requirement for grid-connected electrolyzers to procure new, additional supply of zero-emissions electricity matching or exceeding their load. This is a fundamental requirement for any green hydrogen facility that intends to use emissions free electricity other than just the curtailed power from renewable or nuclear sources during periods of overproduction. Without satisfying this requirement, emissions are not only shifted to other loads but are also amplified.

2. Regionality/Deliverability

Regionality refers to grid-proximity between the additional zero-emission electricity generation resource and the electrolyzer; i.e., sufficient transmission capacity must be available between the generation source and the electrolyzer equivalent to the maximum electrolyser load that is usable regardless of the status of other loads and generation on the grid. This ensures that the additional dedicated zero-emission electricity is indeed delivered to the green hydrogen production facility, while satisfying the time-matching requirement described below.

3. Hourly-Matching

The time-matching criterion requires that all grid-tied electrolyzer loads match 100% of their total electricity consumption over a specified period of time with physically deliverable, additional zero-emission generation.

³² Three Pillars for Building a Green Hydrogen Industry for Decarbonization;

<https://cleanpower.org/resources/pillars-for-a-green-hydrogen-industry/>

³³ Smart Design of 45V Hydrogen Production Tax Credit Will Reduce Emissions and Grow the Industry;

<https://energyinnovation.org/publication/smart-design-of-45v-hydrogen-production-tax-credit-will-reduce-emissions-and-grow-the-industry/>

³⁴ Delegated Regulation on Union Methodology for RFNBOS;

https://energy.ec.europa.eu/publications/delegated-regulation-union-methodology-rfnbos_en

³⁵ First Solar, 10 Other Companies Urge Biden Administration to Adopt Hourly Time-Matching Rules for Green Hydrogen Tax Credits; <https://s3.documentcloud.org/documents/23854072/hourly-matching-industry-letter-final.pdf>

Almost all rigorous studies^{31,33,34,35,36} based on electricity system capacity expansion modeling concur that hourly matching is necessary for avoiding emissions associated with substitution of carbon-free electricity with fossil-fuel generation for non-electrolyzer loads on the grid.

4. Suitability for Utility Gas Distribution Network

As discussed above, procuring truly zero-emission hydrogen capable of displacing fossil natural gas to reduce emissions for compliance with the CLCPA is neither simple nor inexpensive. Zero-emission hydrogen must be reserved for hard-to-electrify industrial uses, for displacing current supply of gray hydrogen in industrial and manufacturing applications, and for long duration energy storage.³⁷

Even if zero-emission hydrogen was available for blending in the gas distribution system, its level of blending would need to be relatively low³⁸ due to metal embrittlement and leakage risks. A safety assessment³⁹ conducted on behalf of the UK government also concluded that hydrogen would increase the risk of fires and explosions in homes. Since hydrogen packs only about a third of the energy of fossil natural gas on a volumetric basis, a 10% blending would displace less than 4% of methane.

Not surprisingly, the result of a review⁴⁰ analyzing 32 independent studies found that hydrogen is worse than electricity for heating homes on every count: it's less economical, less efficient, more resource intensive, and has a larger environmental impact. Studies from European Academies of Science,⁴¹ Deloitte,⁴² and BP,⁴³ just to name a few, all predict a less than 1% role for hydrogen in buildings by 2050, if any at all.

Therefore, hydrogen blending must not be incorporated in any LTP for the purpose of reducing GHG emissions for compliance with the CLCPA, else the cost of procuring it in a true zero-emission manner must be included.

e. Taking Federal Policy Into Account

Princeton University's ZERO Lab has developed the REPEAT granular analysis toolkit⁴⁴ for environmental and economic evaluation of federal energy and climate policies. We used this tool to estimate the impact of the Inflation Reduction Act of 2022 (IRA), H.R. 5376, and the Infrastructure

³⁶ Producing Hydrogen From Electricity: How Modeling Additionality Drives the Emissions Impact of Time-Matching Requirements; <https://energy.mit.edu/wp-content/uploads/2023/04/MITEL-WP-2023-02.pdf>

³⁷ Pathways to Commercial Liftoff: Long Duration Energy Storage; https://liftoff.energy.gov/wp-content/uploads/2023/05/Pathways-to-Commercial-Liftoff-LDES-May-5_UPDATED.pdf

³⁸ The California Public Utilities Commission Final Report: Hydrogen Blending Impacts Study; <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M493/K760/493760600.PDF>

³⁹ Hy4Heat: Demonstrating Hydrogen for Heat – Safety Assessment: Conclusions Report; <https://static1.squarespace.com/static/5b8eae345cfd799896a803f4/t/60e399b094b0d322fb0dad4/1625528759977/conclusions+inc+QRA.pdf>

⁴⁰ Is Heating Homes With Hydrogen All But a Pipe Dream? An Evidence Review; <http://dx.doi.org/10.1016/j.joule.2022.08.015>

⁴¹ European Academies Science Advisory Council: The Future of Gas; <https://t.co/YKZnsFsEk6>

⁴² Green Hydrogen: Energizing the Path to Net Zero; <https://t.co/vgWFDbwp1Z>

⁴³ Buildings Energy Use Electrifies While Efficiency Improves in All Regions; <https://www.bp.com/en/global/corporate/energy-economics/energy-outlook/how-energy-is-used/buildings.html>

⁴⁴ Data Driven Energy & Climate Policy Evaluation; <https://repeatproject.org/>

Investment and Jobs Act of 2021 (IIJA), H.R. 3684, on the demand for pipeline fossil natural gas and other energy sources for residential space and water heating in NYS through 2040 and beyond. Note that this is the same tool that is used by The White House Office of Management and Budget to analyze the emissions impact of the IRA at the national level.⁴⁵

Figure III(a) shows the demand projections in the reference scenario and Figure III(b) shows the mid-range demand projections under the influence of the IRA and the IIJA. In addition to mid-range projections, the model also provides conservative and optimistic projections, which we disregarded. None of the scenarios consider the impact of any state-level legislation or regulations.

A comparison of the two figures can be used to estimate the tool's projected reduction in the demand for pipeline gas for residential heating over time due to the IRA and the IIJA. This comparison shows that by 2040, statewide pipeline gas demand for residential space heating could fall by about a third and for water heating by about a fourth relative to 2024 levels solely due to recent federal policy with no additional costs for NYS. A comparison of commercial gas demand shows similar results.

Given the sheer magnitude of the impact of federal policy on future NYS residential and commercial pipeline gas demand, any LTP that fails to account for the impact of the IRA on the costs of energy efficiency measures and electrification and on pipeline gas demand cannot be taken seriously.

Figure III(a)
Projected NYS energy use in quadrillion BTUs by source for residential space and water heating in the absence of recent federal and state policies.

REPEAT

Rapid Energy Policy Evaluation and Analysis Toolkit

Results

About

Reports

Policy

Frozen Policies Benchmark

Scope

New York

Category	2024	2026	2028	2030	2032	2035	2040	2050
Residential - Final energy use - Residential Space Heating (quads)								
Energy - Total	5.08	5.04	4.97	4.9	4.82	4.72	4.6	4.38
Energy - Biomass	0.244	0.235	0.226	0.216	0.206	0.192	0.17	0.139
Energy - Electricity	0.651	0.646	0.637	0.626	0.614	0.599	0.582	0.556
Energy - Other Fossil	0.701	0.681	0.66	0.639	0.619	0.592	0.552	0.474
Energy - Pipeline Natural Gas	3.48	3.48	3.45	3.42	3.38	3.34	3.29	3.21
Residential - Final energy use - Residential Water Heating (quads)								
Energy - Total	1.74	1.76	1.78	1.79	1.81	1.83	1.87	1.95
Energy - Electricity	0.633	0.639	0.642	0.644	0.646	0.65	0.664	0.69
Energy - Other Fossil	0.101	0.096	0.093	0.09	0.087	0.083	0.076	0.066
Energy - Pipeline Natural Gas	1.01	1.03	1.05	1.06	1.07	1.09	1.13	1.19

⁴⁵ OMB Analysis: The Social Benefits of the Inflation Reduction Act's Greenhouse Gas Emission Reductions; <https://www.whitehouse.gov/wp-content/uploads/2022/08/OMB-Analysis-Inflation-Reduction-Act.pdf>

Figure III(b)

Projected NYS energy use in quadrillion BTUs by source for residential space and water heating in the absence of state policies but accounting for the federal IRA and IIJA.

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Rapid Energy Policy Evaluation and Analysis Toolkit

Results

About

Reports

Policy

Current Policies Scenarios (Mid-range) ▾

Scope

New York ▾

Category	2024	2026	2028	2030	2032	2035	2040	2050
Residential - Final energy use - Residential Space Heating (quads)								
Energy - Total	5.04	4.94	4.74	4.54	4.34	4.07	3.7	3.35
Energy - Biomass	0.253	0.249	0.244	0.238	0.231	0.223	0.214	0.205
Energy - Electricity	0.665	0.687	0.725	0.757	0.786	0.826	0.883	0.908
Energy - Other Fossil	0.726	0.704	0.665	0.626	0.59	0.541	0.472	0.407
Energy - Pipeline Natural Gas	3.4	3.3	3.11	2.92	2.74	2.48	2.13	1.83
Residential - Final energy use - Residential Water Heating (quads)								
Energy - Total	1.72	1.7	1.65	1.61	1.56	1.51	1.48	1.53
Energy - Electricity	0.631	0.643	0.652	0.659	0.663	0.665	0.666	0.685
Energy - Other Fossil	0.108	0.103	0.098	0.093	0.089	0.084	0.08	0.082
Energy - Pipeline Natural Gas	0.986	0.951	0.902	0.854	0.81	0.764	0.737	0.764

IV. Flaws in NFG's Final LTP Filing

On July 17, 2023, NFG submitted its third LTP³ after two rounds of stakeholder feedback and revisions. Unfortunately, like its predecessors, this LTP remains fundamentally flawed. By omitting or selectively applying key pieces of information and by utilizing untenable assumptions, NFG grossly underestimates the cost of their preferred scenario and overestimates the cost and underestimates the feasibility and benefits of the vastly superior Informational Scenarios 2 and 3 that would also be in much closer alignment with NYS policy. By repeatedly submitting unrealistic LTPs, NFG has also demonstrated its inability and unwillingness to participate in the Process established in the Gas Planning Order¹ in good faith.

Under a contract between NFG, the Commission, and Charles River Associates (CRA), the latter prepared and filed its final report⁴⁶ on NFG's LTP on July 25, 2023. We agree in large part with CRA's analysis and findings as well as their serious concerns with and criticisms of NFG's LTP. In our comments below, we have strived to avoid a detailed repetition of CRA's findings; instead, we attempt to support or supplement them with additional information. These comments address select contents of NFG's Final LTP³ in the order in which these appear in the LTP.

⁴⁶ Final Report: National Fuel Gas Distribution Corporation Long-Term Plan Assessment; <https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={60EB8D89-0000-CE3C-BCFE-F01645A49384}>

a. Capital Investment Plan

NFG's Capital Investment Plan, which includes roughly 110 miles of LPP replacement per year until 2035, is nothing but a self-serving, profiteering, ratepayer money-grabbing subterfuge under the pretense of reducing leaks and enhancing system safety. Most of these new pipes with almost century-long physical lives cannot serve a GHG emissions source beyond 2050 under the legally binding GHG emissions limits of the state law.² The cost of depreciating these newly created and soon to be stranded assets at an accelerated timeline consistent with GHG emissions reduction targets of the CLCPA must be incorporated in the BCA of all scenarios included in the LTP.

Instead of merely reducing leaks and safety risks through exorbitantly expensive replacement of LPPs with obsolescent pipes, NFG should consider completely eliminating leakage and safety risks through a strategic plan to shrink the leaky¹¹ gas system and replace most LPPs with non pipe alternatives (NPAs) that provide long term cost, comfort, and climate benefits, can be justifiably capitalized over their full service lives, and are also compliant with the CLCPA.

The fact that NFG's Capital Investment Plan in particular and the LTP in general lead to financially unsustainable outcomes is so transparent that NFG does not shy away from suggesting in one of its own filings⁴⁷ that its wasteful investments in stranded assets and its refusal to take financially responsible actions to comply with the GHG emissions reduction targets of the CLCPA are justified because it believes that it will be bailed out by "some combination of taxpayers and electricity customers."

b. GHG Emissions Intensity of NFG's Fossil Natural Gas Supply

Figure II-11 in NFG's Final LTP is misleading because it uses a 100-year GWP for GHGs whereas NYS uses the science-based 20-year GWP, especially in matters related to compliance with the CLCPA.

c. Misleading References to Power Outages

NFG uses its ability to offer uninterrupted gas service during periods of electrical power outages to incorrectly suggest that over the period covered in the LTP, maintaining gas service will contribute to enhanced safety and resilience relative to electrification. There are multiple problems with this and similar implications.

1. Modern gas-power heating equipment does not work in a power outage. Only the conventional gas-powered tank water heaters that run solely on a pilot light would work during a power outage. Those with igniters and without a permanent pilot as well as those hooked to a central boiler as a zone will not function.

⁴⁷ Reply Comments of National Fuel Gas Distribution Corporation (pp. 63); <https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={F0D99587-0000-C733-A479-B95DFBCCFECD}>

2. During the 2022 Christmas blizzard cited by NFG in its LTP, eleven people lost their lives in Erie County inside homes with gas-powered heating appliances⁴⁸ and the sole storm-related death in Niagara county was the result of carbon monoxide poisoning from a fossil-fueled furnace.⁴⁹ UBMD Otolaryngology Clinic in Buffalo suffered more than \$100,000 of damage from catastrophic failure of their heating system powered by NFG-supplied gas.⁵⁰
3. While there is no documented evidence of fossil natural gas offering any safety benefits over modern electric heating systems, there is well-documented evidence of fire, explosion, and carbon monoxide hazards associated with gas. About two-thirds of the annual 200 hospitalizations and 1800 emergency department visits in NYS due to carbon monoxide exposure resulting from fossil-fuel burning home appliances.⁵¹
4. A relatively small and affluent fraction of NFG's customer base would own gas-powered fireplaces and back-up generators cited by NFG in its LTP. After modernizing home upgrades to install electric appliances, these customers would be able to use propane or gasoline fueled generators⁵² in emergencies, avoid unnecessary and escalating monthly charges for gas delivery, and operate their heat pumps at power levels⁵³ sufficient for maintaining a safe indoor temperature.
5. NFG incorrectly assumes that there will be no technological and capacity improvements or cost declines in microgrid, battery storage, or vehicle-to-grid technologies in the next twenty years to enhance emergency preparedness of all-electric homes. Solar-battery systems already have some rudimentary capability to recharge in grid-disconnected mode,⁵⁴ and some automakers have already started offering intelligent backup power using vehicle batteries.⁵⁵
6. Weatherization accompanying electrification of homes will significantly improve heat retention and safety of these electrified homes during heating outages.

d. Incorrect Assumptions and Misleading Commentary on Heat Pumps

NFG omits Ground Source Heat Pumps (GSHPs) and assumes very limited deployment of Thermal Energy Networks (TENs) in its LTP. Then it proceeds to exploit these omissions to raise exaggerated

⁴⁸ A Woman Stuck in Her Car, a Mom Near Home: Heartbreaking Stories of How Buffalo Storm Victims Died; <https://www.usatoday.com/story/news/nation/2022/12/29/buffalo-blizzard-deaths-victims-how-they-died/10964288002/>

⁴⁹ 27-Year-Old Man Dies of Carbon Monoxide Poisoning in Lockport; <https://www.wgrz.com/article/news/local/27-year-old-man-dies-of-carbon-monoxide-poisoning-in-lockport-niagara-county/71-c146f8ce-9865-48b1-8d5b-9afc584ab09d>

⁵⁰ Gas Heating System Fails During Buffalo Power Outage, Damages Medical Practice; https://drive.google.com/file/d/1_CEH6ch2d8Yfu-FoFJGXxQH9DaP7SXT/view?usp=sharing

⁵¹ About Carbon Monoxide; https://www.health.ny.gov/statistics/environmental/public_health_tracking/about_pages/carbonmonoxide/about_co

⁵² How to Calculate How Big a Generator You Need to Prepare for an Emergency; <https://www.bobvila.com/articles/how-big-of-a-generator-do-i-need/>

⁵³ How Many Watts Does an Air Source Heat Pump Use? <https://news.energysage.com/how-many-watts-does-an-air-source-heat-pump-use/>

⁵⁴ How Does Tesla Powerwall Work During a Power Outage? <https://suncommon.com/how-does-tesla-powerwall-work-during-a-power-outage/>

⁵⁵ Ford Intelligent Backup Power; <https://www.ford.com/trucks/f150/f150-lightning/features/intelligent-backup-power/>

concerns about peak heating demand and reduced efficiency of Air Source Heat Pumps (ASHPs) during cold weather. NFG's upfront GSHP average cost estimate of \$41,000 is totally unreasonable.

A vast majority of GSHP and GSHP-based TEN installations in NFG's service territory will easily qualify for a 40% Investment Tax Credit (ITC) or a similar Direct/Elective Pay benefit from the IRA, many will benefit from the transferability of credits and five-year accelerated depreciation, and the commercial and public authority customers will additionally be able to take advantage of 179D tax deductions.⁵⁶

Significant portions of NFG's service territory qualify for an additional 10% Energy Community Tax Credit Bonus,⁵⁷ increasing the federal ITC to 50%. NFG's service territory is also home to several disadvantaged communities that should receive preferential investment from the NYCI-funded Climate Investment Account. Additionally, there are generous NYS tax and other incentives available for GSHPs.

Not only will the GSHP installations be financially attractive in NFG's service territory from a capital cost perspective, being the most efficient heating source, GSHPs would also enjoy significant operating cost benefits over other forms of heating in NFG's territory due to all the factors related to prolonged periods of low temperatures that NFG has discussed in detail in its LTP. This should result in very short periods of return on investments for GSHP installations if correct out-of-pocket capital cost assumptions are used.

Western New York would be one of the most attractive regions in NYS for GSHP and GSHP-based TEN installations during the period covered in the LTP, and NFG's omission of GSHPs in its LTP is deeply flawed.

e. Renewable Natural Gas

As discussed in detail in §III(c) of this document, RNG's emissions and pollution profiles disqualify it as a means for reducing GHG emissions. NFG's assertion that "Using RNG as a substitute for natural gas captures the GHG emissions from the biogas feed source that would otherwise have been emitted to the atmosphere," is incorrect. In §III(c), we use data from the same source²⁸ that NFG cites in its LTP, compare it with the DEC inventory,²⁹ and use the livestock manure example to show that RNG's production estimates in the "Achievable Deployment" scenario are based on extracting roughly 6.5 times more methane from manure than would otherwise be emitted to the atmosphere. §III(c) also shows that intentionally produced RNG has a carbon intensity comparable to that of fossil natural gas, and is not a valid emissions reducing alternative.

If NFG wants to stick with its LTP's exaggerated RNG supply projections, then it cannot make the avoided methane emissions claim, in which case, its proposed use of RNG is carbon-intensive and does not reduce GHG emissions. If NFG wants to stick to its avoided emissions claim, then most of

⁵⁶ [How IRA Can Take Ground-Source Heat Pumps Mainstream;](https://www.buildinggreen.com/feature/how-ira-can-take-ground-source-heat-pumps-mainstream)
<https://www.buildinggreen.com/feature/how-ira-can-take-ground-source-heat-pumps-mainstream>

⁵⁷ [Energy Community Tax Credit Bonus;](https://arcgis.netl.doe.gov/portal/apps/experiencebuilder/experience/?id=a2ce47d4721a477a8701bd0e08495e1d)
<https://arcgis.netl.doe.gov/portal/apps/experiencebuilder/experience/?id=a2ce47d4721a477a8701bd0e08495e1d>

the zero or negative emissions RNG that it plans to use simply doesn't exist. Through the RNG pipe dream presented in its LTP, NFG is trying to have its cake and eat it too.

RNG, especially the kind that is derived using only the captured natural methane emissions, would inarguably have very limited availability. In its LTP, NFG considers direct use of RNG as one of the future options for hard-to-electrify industrial processes. Such use would leave no meaningful RNG supplies for residential and commercial use, where beneficial electrification anyway is more cost-efficient and more effective in reducing GHG emissions.

f. Hydrogen

As discussed in detail in §III(d) of this document, hydrogen is wholly unsuitable for use in utility gas distribution systems. Even if it was a feasible fuel for the utility network, NFG's LTP includes no plans or cost estimates of procuring it in a manner that would reduce GHG emissions, the detailed criteria for which are described in §III(d) above.

Note that if NFG is permitted to blend hydrogen that is not truly zero-emission, then the GHG emissions exacerbated by this unclean hydrogen will show up under the electricity generation sector in the State's GHG inventory, where they will be subject to RGGI and/or NYCI caps and will place an undue burden on those programs. This makes the case for rejecting hydrogen in the LTP even stronger.

g. Scenario Analyses and BCA

In addition to all the other problems with NFG's assumptions used in their analyses, it is also instructive to note that while NFG assumes no future efficiency improvements in cold-climate ASHP technology and no cost reductions in electric alternatives to gas appliances (which have mature technologies and markets) from economies of scale and learning curves over the period covered by its LTP, yet it spends several pages of the LTP belaboring RNG and hydrogen and their future development, even though these have virtually no cost-effective and scalable pathways to reducing GHG emissions due to limited feedstock, unavoidable emissions, inherently high carbon intensity, and the inherent inefficiency of deriving heat and power from combusting fuels.

h. Electric Infrastructure Development

NFG's comments on this topic in the LTP are completely irrelevant in the context of the Gas Planning Order. Even if the state is unable to fully transition its electricity generation to zero-emission sources by 2040 as NFG contends, and there is some residual fossil-fuel electricity generation, electrification would still provide significant health and climate benefits because electric heating and cooking appliances are significantly more efficient than their gas-fueled counterparts.

While NFG's comments on electric infrastructure development are irrelevant for the purpose of gas system planning, these are extremely revealing of the disingenuity pervasive in NFG's LTP.

NFG cites the gap between the capabilities of existing renewable energy technology and expected future electrical system reliability requirements and states, "for purposes of the LTP, National Fuel

does not assume that the CLCPA goal of 100% clean electricity by 2040 is met, reflecting the fact that the technology to achieve this goal does not yet exist.” Elsewhere in the LTP, NFG states, “Key model assumptions include the start date and annual proportion of natural gas that is replaced by hydrogen.”

Using clean electricity to electrolyze water to generate clean hydrogen, piping it into homes, and burning it to produce heat consumes five to six times⁵⁸ more energy than using the same clean electricity, directly or from battery storage, to operate heat pumps. First, by suggesting an extremely wasteful and inefficient use of clean electricity via hydrogen, NFG’s plan seeks to exacerbate the very problem of a possible shortfall in clean electricity by 2040 that NFG appears to be concerned about. Second, the precious zero-emission hydrogen that NFG seeks to wastefully burn in home appliances is in fact a key candidate for technologies to reduce a possible 2040 shortfall in dispatchable emissions-free resources.³⁷

i. The Long Term Plan

As explained above, this plan has no credibility because of a preponderance of invalid and unreasonable assumptions, BCA, and other analyses that it is based on.

These include, but are not limited to (1) invalid demand assumptions that are inconsistent with the statutory GHG reduction targets of the CLCPA and do not account for the impact of NYCI caps on demand, (2) failure to consider the cost of NYCI allowances for delivering fossil natural gas in excess of the volumes that fall under the legally binding and progressively declining NYCI caps, (3) failure to consider the impact of NYCI investments on the rate of electrification and weatherization, (4) failure to consider the impact of the IRA on the rate of electrification, weatherization, and GSHP adoption, (5) applying incorrect emissions, cost, and availability assumptions for RNG and hydrogen, (6) failure to account for the escalating costs of maintaining the gas distribution network without shrinking it in proportion to the inevitable and statutorily required reduction in the volume of fossil natural gas delivered through the network, (7) failure to account for the costs of appreciated depreciation of gas infrastructure investments, and (8) ascribing costs and benefits in an inconsistent and arbitrary manner; for example, NFG treats the various incentives for electrification and weatherization as costs because of its purported adherence to the Societal Cost Test (SCT), yet it fails to apply either the social cost of carbon⁸ or include the cost of the enormous health burden^{59,60,61} imposed on New Yorkers from burning fossil natural gas in its analyses.

A simple comparison of the emissions reduction trajectory in Figure IV-3 of NFG’s Final LTP³ with the figures in §III(e) of this document reveals that emissions from pipeline fossil gas in NYS could decline at a faster pace, and at no cost to the State, just from the impacts of the IRA than the pace expected from NFG’s LTP. Granted that the GHG emissions reduction trajectories of different LDCs may not

⁵⁸ Home Heating With Hydrogen: Ill-Advised as It Sounds; <https://spectrum.ieee.org/home-heating-with-hydrogen-is-ill-advised>

⁵⁹ What is the Health Impact of Buildings in Your State; <https://rmi.org/health-air-quality-impacts-of-buildings-emissions#NY>

⁶⁰ Uncovering the Deadly Toll of Air Pollution from Buildings; <https://rmi.org/uncovering-the-deadly-toll-of-air-pollution-from-buildings/>

⁶¹ Population Attributable Fraction of Gas Stoves and Childhood Asthma in the United States; <https://www.mdpi.com/1660-4601/20/1/75>

coincide with that of the state as a whole, this comparison still serves to highlight the sheer inadequacy of NFG's LTP with regards to emissions reduction.

V. Requested Actions and Justification

NYCP and NY-CRP offer the following suggestions in response to NFG's Final LTP filing:

a. Reject NFG's Final LTP in Whole and Issue a Modified LTP

Due to the aforementioned fatal flaws in NFG's Final LTP, the Commission must not accept this LTP.

§7(2) of the CLCPA² requires the Commission to consider whether their decision on NFG's Final LTP is consistent with or will interfere with the attainment of the statewide GHG emissions limits established in ECL §75. Accepting NFG's Final LTP will both be inconsistent with and will interfere with the attainment of the statewide GHG emissions limits because the use of fossil natural gas for space and water heating that the LTP fails to reduce adequately is the largest contributor to the State's GHG emissions.

In its LTP, NFG reports a breakdown of its system throughput by residential, commercial, public authority and industrial customers. While some industrial customers and hospitals may not be included among obligated entities for aligning their emissions with the NYCI caps due to their possible status as EITE entities, the fossil natural gas delivered to all residential and most commercial and public authority customers would be subject to NYCI caps regardless of the Commission's decision on NFG's LTP.

If the Commission approves an LTP that is not CLCPA-compliant, for which it will be required to provide a detailed statement of justification under §7(2) of the CLCPA, NFG as a fossil-fuel distributor and its customers collectively will still be subject to NYCI caps. This has the potential to lead to uncertainty, confusion, and increased costs, which is completely counter to the premise of a long-term planning process.

The Gas Planning Order states that "this Order establishes a foundational process through which the Commission can act to ensure that the LDCs reduce GHG emissions in accord with the CLCPA." The Commission must uphold this principle of the Gas Planning Order.

§8 of the CLCPA² authorizes the Commission to "promulgate regulations to contribute to achieving the statewide greenhouse gas emissions limits established in article 75 of the environmental conservation law." The Commission must use this authority, its broader authority to regulate LDCs, and the requirements of §7(2) of the CLCPA to direct Staff to work with CRA or another consultant to prepare a modified LTP for NFG based on a CLCPA-compliant GHG emission reductions trajectory.

b. The Track Record of the Gas Industry and NFG with Climate Regulations

NFG's repeated refusal to prepare and file an LTP compliant with the Gas Planning Order and the CLCPA should not come as a surprise. In this section, we discuss this situation in the broader context

of the practices of the fossil-fuel industry in general and those of NFG in particular to lay the groundwork for our subsequent suggestions.

The oil and gas industry has engaged in a decades long and very well documented⁶² campaign of denial, doubt, and delay to stymie climate action at all levels of government. As the science of anthropogenic climate change is now well-accepted, the industry has shifted its focus from denying climate change to delaying the implementation of climate solutions, using narratives such as alternatives are risky, they might not work, are expensive and might make the situation worse, or that continued investment in methane infrastructure is required to meet increasing consumer demand, the lock-in of already existing infrastructure, and the immaturity of system and technology alternatives.⁶³ Almost all of these are featured in NFG's LTP. An NPR investigation⁶⁴ shows that gas utilities all over the United States are engaged in lobbying, misinformation campaigns, and misleading PR campaigns to delay a transition to modern healthier and cleaner electric appliances for heating and cooking.

NFG has been a key player in disinformation campaigns to thwart NYS electrification,⁶⁵ both directly and through front groups that it finances, presumably with ratepayer funds. Earlier this year, NFG used its customers' phone numbers to run an anti-electrification robocalling campaign,⁶⁶ in which the company used false claims such as "banning natural gas [in new construction] will lead to power outages" to alarm its customers and lure them into placing calls to their legislators in opposition to the all-electric new buildings mandate – a key recommendation of the Scoping Plan.⁶ It was later reported⁶⁷ that NFG used a website funded by its ratepayers for an energy efficiency program for its robocalling campaign.

NFG is a contributor and a steering committee member of a fossil-fuel front group called New Yorkers for Affordable Energy⁶⁸ (NYAE), a 501(c)(6) business league with a self-identified mission to expand fossil natural gas service. Other NYAE members include the notorious American Petroleum Institute and gas industry players such as Enbridge, Millennium Pipeline, and National Grid, etc. NYAE has used robocalling,⁶⁹ broadcast media campaigns characterized as "misleading" by Politico,⁷⁰ and social media campaigns⁷¹ to spread misinformation about building electrification.

⁶² The Power of Big Oil: Part 1 Denial, Part 2 Doubt, Part 3 Delay;
<https://www.pbs.org/wgbh/frontline/documentary/the-power-of-big-oil/>

⁶³ Delay is the New Denial;
<https://environmentalsolutions.mit.edu/news/letter-from-the-director-delay-is-the-new-denial-march-2022/>

⁶⁴ As Cities Grapple With Climate Change, Gas Utilities Fight To Stay In Business;
<https://www.npr.org/2021/02/22/967439914/as-cities-grapple-with-climate-change-gas-utilities-fight-to-stay-in-business>

⁶⁵ The Gas Industry is Gaslighting New York: V3.0 (Sections 2, 3); <https://bit.ly/GaslightNY>

⁶⁶ Fossil Fuel Companies Enlist Customers to Fight New York's Climate Law;
<https://nysfocus.com/2023/03/07/fossil-fuel-gas-robocall-climate-new-york/>

⁶⁷ Are Your Gas Bills Paying for the Campaign Against Banning Gas?
<https://nysfocus.com/2023/05/17/national-fuel-utility-customer-gas-ban-lobbying>

⁶⁸ New Yorkers for Affordable Energy: Our Coalition;
<https://web.archive.org/web/20230406221951/https://www.ny4affordableenergy.com/ourcoalition/>

⁶⁹ Fossil Fuel Industry Mobilizes Front Group To Weaken NY Climate Law;
<https://news.littlesis.org/2022/04/19/fossil-fuel-industry-mobilizes-front-group-to-weaken-ny-climate-law/>

⁷⁰ Fossil Fuel Group Targets Climate Plan;
https://subscriber.politicopro.com/newsletter/2022/03/fossil-fuel-group-targets-climate-plan-00021145_1

⁷¹ Energy and Policy Institute: New Yorkers for Affordable Energy;
<https://energyandpolicy.org/new-yorkers-for-affordable-energy/>

In addition to funding and running misinformation campaigns and engaging in ratepayer funded grassroots lobbying efforts, NFG spent about \$1.14 million between 2016 and 2022 on lobbying against climate bills, including the CLCPA itself.⁷²

c. Ensuring Future LTPs' Compliance

It would be naive and irresponsible for the Commission to design its procedures and processes in a manner that is agnostic of the well-documented real-world practices of the gas industry and gas utilities, when regulating the latter is one of the Commission's primary responsibilities.

Certain LDCs, including NFG, have invested significant time, effort, and resources in opposing the CLCPA and attempting to thwart its implementation. There is no reason to believe that these LDCs will change their behavior and practices in response to the Gas Planning Order and will voluntarily prepare LTPs that comply with the CLCPA.

The Order Instituting Proceedings directed Staff to propose a modernized gas system planning process that is comprehensive, suited to forward-looking system and policy needs, designed to minimize total lifetime costs, and inclusive of stakeholders. One of the requirements for this process was to enable alignment with the State's policies, including the emergence of new and modified technologies and the impact and importance of the CLCPA.

On February 12, 2021, Staff issued this Proposal, which the Commission adopted after modifications in its Gas Planning Order. The Process adopted in the order assumes that the LDCs will make a good faith effort to prepare LTPs compliant with the Gas Planning Order and the CLCPA. This assumption must be questioned, especially in light of NFG's inability or unwillingness to prepare a compliant LTP. Our opinion is shared by CRA, whose final report⁴¹ concludes, "NFG has applied its assumptions selectively and the company often serves to hinder the forecasted pace of decarbonization efforts in Western New York."

NFG's participation in the Process has exposed a weakness in the Process that it does not sufficiently account for the fact that some LDCs may actively engage in hindering an alignment with the State's policies. While we generally agree with CRA's findings, we do not share their view that "NFG's Initial, Revised, and Final LTPs constitute meaningful progress" toward determining the most appropriate, beneficial, and cost-effective means of seamlessly providing customers with affordable and reliable energy, while reducing carbon emissions in line with the CLCPA's statutory targets. This is because NFG's third and final LTP remains fundamentally flawed in its assumptions, analyses, plans, and proposals.

In the Gas Planning Order,¹ the Commission recognizes that "We expect to learn from the experience we, Staff, the LDCs, and stakeholders will gain as the LDCs' long-term plans are reviewed pursuant to this new process. Those lessons learned can inform modifications to this process as we proceed through the review of 11 LDCs' long-term plans."

⁷² **Fueling Obstruction: The Fossil Fuel Networks Undermining Climate Action in New York State;** https://public-accountability.org/wp-content/uploads/2022/11/LittleSisFuelingObstruction_11.02.pdf

NFG's participation in the process so far has demonstrated that an LDC whose revenue and profits primarily stem from the system for distributing fossil natural gas will do everything to avoid complying with the CLCPA's emissions reduction targets that would necessarily require near-elimination of gas for most residential, public, and commercial uses. Based on this experience, the Commission should proceed to modify the Process to remedy this weakness without delay, because some of the other LDCs may also choose to employ NFG's tactic of willful non-compliance with the CLCPA.

As discussed in §III(a) of this document, it is reasonable to expect upcoming ECL §75-0109 regulations to impose legally binding limits on GHG emissions from utility gas delivery at least in proportion to the economy-wide GHG emission reduction targets of the CLCPA. The Commission should direct Staff to propose reasonable LDC-specific GHG emissions limits over 20 years, preferably declining annually, which are consistent with the 2030 and 2050 statewide GHG emissions reduction targets stipulated in ECL §75-0107(1). The Process should then be modified to include these LDC-specific targets that the LTPs must achieve. Meeting these targets would be a reasonable expectation in an LTP because the LDCs will indeed need to adhere to similar legally-binding progressively declining emissions limits while conducting business in NYS.

Including the requirement to adhere to reasonable GHG emissions reduction trajectories will encourage the LDCs to prepare LTPs that are compliant with the Gas Planning Order and the CLCPA and will avoid wasting ratepayer monies as well as months of Commission, stakeholder, consultant, and Staff time in nearly futile attempts to rectify a series of unreasonable and untenable LTP filings, as has been the case with NFG.

VI. Summary and Conclusion

In response to NFG's Final LTP filing dated July 17, 2023, NYCP and NY-CRP respectfully request the Commission to:

- a. Reject the Final LTP filed by NFG in whole.
- b. Use its authority under the CLCPA and the PSL to direct Staff to work with a consultant to prepare a modified LTP for NFG.
- c. Modify the planning process by including LDC-specific declining GHG emissions limits to enable and require the LDCs to file LTPs that comply with the CLCPA and the Gas Planning Order.